

REMARKS

Reconsideration of the application is requested in view of the above amendments and the following remarks. Clarifying amendments have been made to claim 1 in order to remove the phrases in parentheses and revise some of the terms so that the claim terms are more consistent with each other. No new matter has been added.

§ 112 Rejection

Claim 1 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicant submits that the amendments to claim 1 address the issues raised by the rejection and that claim 1 is now definite.

§ 102 Rejection

Claim 1 was rejected under 35 U.S.C. § 102(e) as being anticipated by Mears (U.S. 6,676,706). Applicant respectfully traverses this rejection.

Mears discloses a two-incision surgical method that is performed with the patient in the supine position (see col. 2, lines 13-14 of Mears) and the first skin incision is made over the anterior side of the hip. The intermuscular interval between the tensor fascia lata muscle and the sartorius muscle is approached during the first incision (see col. 6, lines 49-51 of Mears). A second incision is made on the posterior side of the hip far above the greater trochanter. See further col. 8, lines 30-35 of Mears.

Mears fails to disclose a two-incision method in which the patient is positioned on the lateral decubitus position and a first skin incision is made over the anterolateral side of the hip, wherein the inner muscular interval between the Gluteus medius muscle and the tensor fascia lata muscle is approached during the first incision. Mears also fails to disclose a second incision that is made over the Gluteus maximus above the greater trochanter, which permits an approach to an exact site of the intermuscular interval between the Gluteus medius muscle and the Piriformis muscle, as required by claim 1.

The claimed invention uses an anterolateral approach for the hip (part of the Watson-Jones approach) to dissect between the Gluteus medius muscle and the tensor fascia lata muscle,

while Mears discloses a method that uses an anterior approach (part of the Smith-Peterson approach) to dissect between the tensor fascia lata muscle and the sartorius muscle. Further, the claimed invention is performed while the patient is on the lateral decubitus position while Mears discloses a method performed with the patient on the supine position. Still further, the claimed invention requires a second skin incision above the Gluteus maximus above the greater trochanter and approaches an exact intermuscular interval between the Gluteus medius muscle and the Piriformis muscle, while Mears discloses a second incision on the posterior side of the hip far above the greater trochanter. Therefore, Mears fails to disclose every limitation of claim 1.

The Mears method also involves some disadvantages over the claimed surgical method. The Mears method more likely results in injury to the lateral femoral cutaneous nerve because the lateral femoral cutaneous nerve runs near the interval between the tensor fascia lata muscle and the sartorius muscle where the Mear method requires cutting. The claimed method uses the anterolateral approach, which includes cutting far from the lateral femoral cutaneous nerve. Therefore, the claimed method greatly reduces the possibility of injuring the lateral femoral cutaneous nerve.

Another advantage of the claimed method is that the acetabular component used with the method can be inserted without using fluoroscopy. The Mears method requires the use of fluoroscopy because it is very difficult to insert acetabular component without the image control of fluoroscopy due to the difficult exposure for the acetabulum. In the claimed method, the acetabular component can be inserted without the use of fluoroscopy because the acetabulum is well exposed with the claimed approach. Therefore, there is no radiation hazard to the surgeon due to fluoroscopy during insertion of the acetabular component and the required surgery time can be reduced because the extra steps involving fluoroscopy are eliminated.

A still further advantage of the claimed method is that the second skin incision is made over the Gluteus maximus above the greater trochanter and the exact site of the intermuscular interval between Gluteus medius muscle and the Piriformis muscle is approached. Because the claimed method uses the posterolateral approach in the second skin incision with the patient in the lateral decubitus position, the structures under the second skin incision can be visualized

clearly so that the surgeon can dissect the exact site of the intermuscular interval between the Gluteus medius and the Piriformis muscles without injuring the muscles. The visualization on the intermuscular interval between Gluteus medius muscle and the Piriformus muscle enables the operating surgeon to perform the surgery without damaging the muscles and nerves (e.g., the superior gluteal nerve and the sciatic nerve), to be able to coagulate the bleeding vessels, and to find the exact entry for the femoral stem reaming. As a result, the claimed method reduces complications and total blood loss in addition to those advantages discussed above.

Another advantage of the claimed method is that there is improved ease in making the femoral stem insertion as compared to the Mears method. As the second skin incision in the claimed invention is made over the Gluteus maximus above the greater trochanter and the intermuscular interval between the Gluteus medius muscle and the Piriformis muscle is approached, the manipulation of the instrument for femoral stem insertion is improved and may be easier. Therefore, the femoral stem can be more easily inserted even without the use of complicated instruments. This advantage also provides reduced surgery time and an overall less complicated procedure as compared to the Mears method.

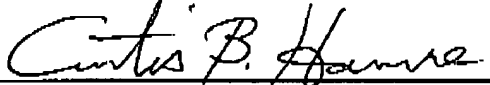
A still further advantage of the claimed method is the potential reduction in overall complications related to the procedure. As compared to the Mears and other two-incision methods, the claimed method is minimally invasive for a total hip arthroplasty. Therefore, the overall rates of complications and/or problems related to the procedure (e.g., nerve damage, femoral fracture, blood loss, muscular injury) can be reduced. Moreover, in the event that such complications may arise during the procedure, management of the complication is improved because the incision of the skin can be easily extended with the patient in the lateral decubitus position.

In view of the above, Applicant submits that Mears fails to disclose every limitation of claim 1. Applicant also submits that Mears fails to disclose the related advantages associated with the two-step method required by claim 1. Therefore, claim 1 is allowable over Mears. Favorable reconsideration of the application in the form of a Notice of Allowance is respectfully requested.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

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Curtis B. Hamre
Reg. No. 29,165
CBH/lad